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CUSTOMERS' REACTION TO OVERBOOKING FAILURES IN HOSPITALITY INDUSTRY

Framework of actions to remedy capacity
management failures

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Abstract

This literature review discusses customers' reaction to capacity management failures that result from overbooking. Even though not all hospitality businesses overbook, overbooking is widely used in the hospitality industry. However, research on overbooking effects is not yet thorough. Overbooking practices affect companies' long-term profitability. For these reasons there is need for study on customers' reaction to overbooking failures. This study shows that negative overbooking failures have effect on customers' word-of-mouth behaviour and repurchasing intentions, while upgrading has no significant influence on customers purchasing behaviour. Customers' reaction is influenced by customer specific reasons and how customers to face the failure are chosen are informed. Customers' reaction can be improved by remedying three areas of perceived fairness: interactional fairness, procedural fairness and distributive fairness. These areas are interrelated and therefore successful remedy requires succeeding in all three. The cause for the failure affects customers' reaction and this study suggests how the reasons behind the failures should be framed. It is also found that compensation's type, amount and speed affect customers' satisfaction. According to the findings encouraging complaining behaviour should be practised. To provide a tool for hospital management, this study introduces a framework of actions in managing customers' reaction in capacity management failures. The framework brings together all relevant components that are needed to understand and enhance actions in capacity management failure situations.

Keywords revenue management, yield management, overbooking, oversales, perceived fairness, service failure, capacity management

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1 Introduction

Maximizing room capacity usage e.g. aiming to book the hotel as full as possible can lead to overbooking capacity. Overbooking means booking more rooms for customers than there is capacity in a hotel. Although there are many service providers who do not specifically use overbooking strategy, overbooking is widely used in hospitality industry (Noone 2013, Pullman and Rodgers 2010). The profits gained in pursuing the maximal capacity usage, at optimal price, are high. Reducing risk of unsold rooms, even by small percentage such as 10%, could have a significant impact on a hotel's performance (António *et al.* 2017).

Overbooking is widely used even though Lefever (1998) claims that the cost of underbooking by one room is less than the cost of overbooking by one room. Lefever's model does not even include the loss of potential repurchasing or negative word-of-mouth. Cash compensation, cost of physical replacement and the potential loss of future revenue must be calculated as cost of customer whose access to the hotel is denied. (AHLA 2006). Cost and availability of rooms at nearby hotels varies and this affects the cost of overbooking (AHLA 2006).

In addition, the costs of a customer who has to be moved to another hotel can be a loss of profit from future purchase and negative word-of-mouth. This study aims to describe how customers react in capacity management failures and provides knowledge on how to manage customers' satisfaction through capacity management failure situations.

Research on customers' reaction to capacity management failures in hospitality industry is not thorough. Hwang and Wen (2009) argue there is no study concerning how overbooking effects on customer behaviour. Majority of customers are dissatisfied with companies' service recovery efforts (Tax *et al.* 1998) yet there is no guidance on how to deal with dissatisfied customers (Colgate and Norris 2001). Hotels need to be prepared for service failures so that failures can be efficiently handled, and customer-relationships can be further developed (Koc 2017 p.9). This study provides a framework of actions that address how to handle capacity management failures in overbooking situations. With the help of this framework hospitality businesses can more successfully manage customers' reactions in capacity management failures.

1.1 Research question

This literature review studies how *customers react to capacity management failures and what can be done to remedy these failures for customers*. The topic area of this study is revenue management with the specification in overbooking practices and customers' reactions to capacity management failures. A framework of actions in capacity management failures is introduced. This study explains assumptions and information to which the framework is based on. From the managerial point of view, this literature review is an effective way to familiarize oneself with the subject and to collect best practices for addressing customers in capacity management failure situations. These practices support hotels long-term profitability instead of short-term profits.

1.2 Scope of the research

This study focuses on revenue management and hospitality industry literature. Furthermore, this study reviews some literature from restaurant and airline industries and previous studies from the field of marketing. This is because the nature of customers' actions and reactions to revenue management practices are assumed to have similarities in these related industries and fields of studies. Literature reviewed is not limited to any specific geographical area.

This study addresses three types of capacity management failures that result from overbooking: denied access, downgrading and upgrading. Other capacity management failures and service failures are left outside the scope. Introduced framework is a simplification and provides one approach to handling failures that results from overbooking. In its present form the framework might not be suitable for all cases.

1.3 Structure of the research

The first chapter covers the background of the research, the research question and the scope and structure of the research. The second chapter introduces revenue management and overbooking from hospitality industry's point of view. Second chapter also introduces definitions of capacity management failures, denied access, downgrading and upgrading in the hospitality industry.

The third chapter introduces customers' reactions to capacity management failures. The effect of denied access, downgrading and upgrading in future spending and perceived

fairness are considered. Customers' status level, culture and travelling occasion affect customers' reactions in these capacity management failure situations.

The fourth chapter introduces suggestions of how to act before and after capacity management failures. Suggested actions before service failure includes firstly using expertise in overbooking and secondly planning the principles of choosing and informing customers that face capacity management failures. Suggested actions after denied access, downgrading and upgrading are introduced. These actions include compensations, considering customers emotional needs in the failure of denied access and physical replacements. A framework of actions for managing these capacity management failures is introduced. The framework includes actions that affects customers' reactions before and after capacity management service failure.

The fifth chapter introduces conclusions and limitations of the study. Implications to research includes explanation of how this study fills a gap by combining different results from related industries. Implications to practice concludes on best practises in managing customers' reactions in capacity management situations. Limitations acknowledges the limitations of this study and the framework. Further research proposes that studies with customers who have faced an overbooking situation should be conducted.

2 Theoretical background

The first section in this chapter introduces revenue management practices and overbooking. The second section introduces definitions of capacity management failures that result from overbooking: denied access, downgrading and upgrading.

2.1 Definition of revenue management

This section discusses what is revenue management and how and why overbooking is a common practice in the hospitality industry. Revenue management is allocating the service capacity to the right customer, at a right time and with the right price in a way that maximizes revenue (Kimes 1994). This allocation is done with the help from information systems and pricing strategies (Kimes and Wirtz 2003). The availability of new data sources, such as customer reviews and figures for effective benchmarking, has shifted the focus from capacity optimization to price optimization (Noone *et al.* 2011). Allocation of rooms with different prices is done to maximize the total expected revenue or profits in a situation where the demand for rooms is uncertain (AHLA 2006, Joshepi *et al.* 2016). Revenue is maximized with the optimal combination of room prices and capacity usage. Revenue management has high importance in hospitality management due to its clear connection to revenue creation (Joseph *et al.* 2016).

Practical application of revenue management has changed remarkably whereas the theoretical definition has remained the same (Joseph *et al.* 2016). Automation continues to have a strong impact on revenue management (Kimes 2017). Nowadays, revenue management requires continuous monitoring and changes, because the market and the data collection are dynamic (António *et al.* 2017). Nevertheless, revenue management consists of economic and statistical principles that anyone can understand (AHLA 2006).

Analytical pricing models and mobile technology are going to have a major impact on revenue management in hospitality industry in the future (Kimes 2011, Kimes 2017). Hotels need to make sure they are involved in emerging distribution channels and be prepared to be present in platforms that become more widespread. Social media is not dominant distribution channel, but it is used to guide customers to brands site (Kimes 2017).

Revenue management becomes more system-orientated when the size of the hotel increases (DeKay *et al.* 2004). Company size affects the resources allocated to revenue management (Joseph *et al.* 2016). This does not mean that bigger companies are automatically more successful in revenue management. Resources allocated, technology knowledge and the ability to collect of relevant data can lead to successful revenue management in a hotel regardless of its size. However, if revenue management in a hotel business is not actively pursued, then the hospitality business most likely does not have an overbooking strategy. This means that bookings are taken in only until the capacity limit is reached and capacity management failures resulting from systematic overbooking do not happen.

Digitalization has given hotels the possibility to update availability and prices dynamically and in real time through global distribution systems (GDSs) and online travel agencies (OTAs) (Emmer *et al.* 1993). Dynamic pricing through modern distribution channels enables hotels to guide demand in a more agile way. Digitalization has moved power from traditional agents to OTAs (Joseph *et al.* 2016) and hotels' own channels (Gilbert *et al.* 2005). OTAs and GDSs require commission and this leads to hotels trying to guide reservations through their own distribution channels. Customer reviews and ranking can be seen on some distribution channels and customers can give direct and unbiased feedback that is not dependent on the agencies. OTAs were found as one of biggest challenges in revenue management (Kimes, 2017) and reasons for this are relatively big commissions and the dominant role in the market.

Forecasting demand is needed to practice revenue management (Ivanov and Zhechev 2012) and overbookings are also based on forecasts. Overbooking is done aggressively many months before the date and reservation levels are refined by customers as the date gets closer (Toh and DeKay 2002). Hotels have reported that individual reservation are nowadays done closer to arrival than before (DeKay *et al.*). *“The “correct” level of overbooking is where the expected cost of an oversale for the next room to be sold is equal to the expected marginal revenue value for the next room to be sold”* (AHLA 2006). Expected marginal revenue is the probability of booking multiplied by the price of the booking (*ibid.*). When the expected marginal revenue value is higher than the marginal expected cost of an oversale (same as overbooking), a room can be sold for at least with the expected marginal revenue value (*ibid.*). The traditional way of setting overbooking levels is deciding that the probability of an overbooking is no more than “x” percent (AHLA 2006).

Historically overbookings have been done by setting overbooking percentage rates (OPRs) (Lefever 1988). In the past the OPRs were not changing dynamically whereas nowadays these rates change constantly (Lefever 1998). These rates include factors such as the level of present reservations, the types of business booked in the hotel, the previous year's booking history, special events in the surrounding area, competing hotels, the number and frequency of walk-ins, the no-show rate and any special hotel factors (Lefever 1998). No-show means a customer that does not show up or cancel their reservation. Walk-in refers to a customer that has not made a reservation and is looking for a hotel room for the same night.

Overbooking has been used to secure hotel from late-cancellations, no-shows and early departures (Toh and DeKay 2002, DeKay *et al.* 2004, Ivanov and Zhechev 2012). Penalties can be used to control duration of customers stay (Kimes and Chase 1998). For example, deposits and credit card guarantees are used for reducing uncertainty caused by no-shows (Noone 2011). Overbooking due to no-shows in one-night stays has decreased due to the practice of guaranteeing room reservations with credit cards (Toh and DeKay 2002). DeKay *et al.* (2004) in their study found that there is a practice in the industry that the customers are billed for the first night and the losses of cancelled reservations that were longer than one night are a risk for the hotel. Although the risk of cancellations for the hotels (António *et al.* 2017) has decreased due to penalties, group reservation agreements still cause uncertainty. These agreements usually let the customer to reduce the number of booked rooms at certain checkpoints (DeKay *et al.* 2004). The whole reservation is not expected to realize, and hotels overbook as they try to decrease the number of unsold rooms. The small number of walk-ins is not able to compensate for no-show customers and this is one of the reason hotels overbook capacity (DeKay *et al.* (2004). The small number of walk-ins is probably due to the locations of hotels in the city center and there are no families driving by (DeKay *et al.* (2004)). Convenience of making reservations online can be one possible explanation for the decreased the number of walk-ins.

2.2. Definition of capacity management failures

Capacity management failures that result from overbooking are denied access, downgrading and upgrading. Denied access and downgrading are considered as negative service failures whereas upgrading is considered as positive service failure. Denied access due to overbooking means that the hotel must send customer to another hotel.

Customers whose access is denied are called walks. In most cases, customers access is denied when all room categories are booked full. Downgrading due to overbooking in higher room class means that customers are moved from higher room class to lower room class. In most cases customer is downgraded because the room class the customer has booked is full.

Upgrading due to overbooking means that more capacity is allocated to the lower room classes as customers are upgraded to higher room classes (DeKay *et al.* 2004). Upgrading can be done either when capacity in lower room class is overbooked on the date of customers arrival or when the capacity in lower room class is not yet full. In the latter case, upgrading might also increase revenues if there is demand for lower room class but not for upper room class. Upgrades can be also done when they do not raise revenues or there is no overbooking failure, for example, customers of high importance or loyalty programs can be upgraded if there is available capacity. However, this might lead to revenue reductions from the optimal in a case where there would have been demand for higher room class on its original price.

3 How customers react to capacity management failures

The first part of this chapter considers customers' reaction to negative service failures by looking into failures effect on future spending, customer specific reasons and perceived fairness. The second part of this chapter considers customers' reaction to positive capacity management failure by looking into failures effect on future spending, customer specific reasons and perceived fairness.

3.1 Customer reaction to negative capacity management failures

The first section of Chapter 3.1 considers how denied access and downgrading affect future spending. Second section considers how reaction to negative service failures can be affected by specific customer related reasons such as customer relationship, culture and traveling occasion. The third section considers perceived fairness by discussing application of the equity theory, the customer service gap and the framing in negative capacity management situations.

The successful handling of customer complaints can increase the profits by increasing loyalty (Koc 2017 p. 18). Generally, unsatisfied customers want to speak to a hospitality employee or a manager of specific level (Koc 2017 *et al.* 2017). Writing on social media sites can happen if the customer does not feel like he or she was heard (*ibid.*). Therefore, interactional fairness presented in section 3.1.3 plays a major role in customer failure situations. Some customers skip all interaction with the service provider and go straight to internet to write a complaint (Koc 2017 *et al.* 2017). Some customers choose to send e-mail or letter to the service provider and tell all details that went wrong, whereas others fill comment or feedback card (*ibid.*). Some customers phone or deliver complaint through formal complaint on internet (*ibid.*). Some customers leave the hospitality business without complaining (Blodgett *et al.* 1995). Regardless of the medium customers use, hospitality business should address complaints with care to increase customers' satisfaction.

3.1.1 Effect of denied access and downgrading on future spending

This section considers how denied access and downgrading affect customers' future spending with the hospitality business. Wangheim and Bayón (2007) claim that the reaction to unfairness is reducing the input into relationship, such as the amount future business. Mattila (2004) suggests that emotionally committed customers might feel

“betrayed” by the service providers’ failure. Competition is fierce and the customer is more likely to try another hotel chain next time they travel than to return to a hotel chain with negative associations. Negative associations and future actions can be avoided if customers’ perception of fairness can be influenced. Service failures for new customers can be so unpleasant that they are not willing to give the service provider a second chance after experiencing service failure (Koc 2017 p.16-17, Bernardo *et al.* 2013, Lin 2012), whereas service failures to loyal customers can ruin long-lasting friendship, create serious trust issues and cause severe damage to business (Koc 2017 p.16-17).

Wangheim and Bayón (2007) show that denied access and downgrading in the airline industry causes strong negative effect on customers’ future spending. This study assumes that similar findings can be found from hospitality industry. Service failure can change customers’ repurchasing intentions, but it can also have impact on other customers’ purchasing intentions through negative word-of-mouth such as reviews on social media. This is supported by Koc *et al.* (2017) who describe visible consequences of service failure can include the loss of a loyal customer and invisible consequences as the loss of potential customers (*ibid.*). Walked customer are harmful to goodwill (DeKay *et al.* 2004) because walking a customer is a major service failure and therefore is hard to remedy.

3.1.2 Reaction to denied access and downgrading effected by customer specific reasons

This section considers how reaction to negative service failures can be affected by specific customer related reasons. The three discussed in here are customer relationship, culture, traveling occasion (figure 1) and the combinations of these may cause various different customer reactions. In addition, there are several other reasons such as customer personality and situation-specific conditions that impact customers’ reaction. However, these customer- and situation-specific condition are complex and must be considered by the hotel personnel.

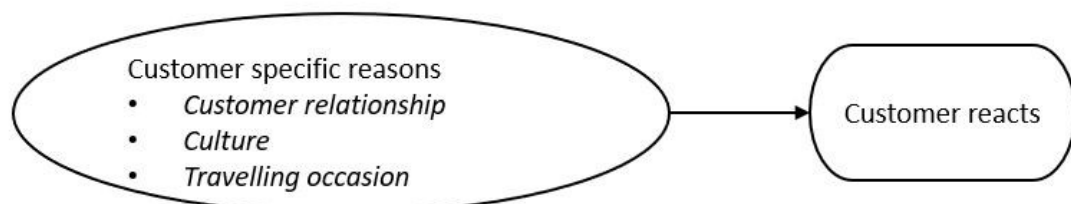


Figure 1. Effect of customer specific reasons on customer reaction

Customer relationship. Fairness theory states that customers consider fairness according to the outcomes and inputs (Wanheim and Bayón 2007). Hotels communicate status customers their high value (Wanheim and Bayón 2007) through for example loyalty programs. High status customers react more critically to denied access than regular customers because they have invested more in customer relationship (ibid.).

Commitment can also have an impact on customers' expectations of hospitality business' actions. Therefore, customer who is committed to a certain brand more than an average customer can have higher expectations and therefore is more strongly affected by the way a capacity management failure is handled. More committed customers tend to express their complaints for the service provider and hope the problem gets resolved and they want to help the company improve and become more successful (Koc 2017).

Culture. Hazel and Shinobu (1991) argued that Asian consumers have more collective mindset whereas American consumers are more individualistic. This may lead to Asian customers expecting fair pricing for everyone, whereas American customers are expecting to get fair pricing for themselves (Kimes *et al.* 2003). Personal service is in high importance in Asia and revenue management practices can be seen faceless, which may lead to perceiving these practices as unfair (Kimes *et al.* 2003). These cultural differences can be a reason why overbooking practices are less accepted by customers from Asian cultures.

Travelling occasion. Customers' emotional commitment to the hotel will be higher if the occasion or the hotel itself is special. The commitment is typically lower when the purpose of the hotel for the customer is simply to provide accommodation. For instance, a customer on a honeymoon is typically more invested than a business traveller spending a night in the hotel.

3.1.3 Perceived fairness, customer service gap and framing of denied access and downgrading

This section introduces the equity theory's application to capacity management failures, service gap between customer's expectations and the received service and effect of framing capacity on management failures.

Hwang and Wen (2009) found that overbooking's perceived fairness on average is neutral. In their study they also found that distribution of perceived fairness of overbooking practices is wide and up to 43,8% considered these practices as "somewhat unfair" or "very unfair". Hwang and Wen (2009) found that 8% of participants in their

survey directly stated that the hotel should not overbook. These reactions are based on a survey to grocery store shoppers, not specifically related to overbooking situations. It is possible that customers who face the failure can have even more negative reactions due to other customer related issues. Although customers' attitudes towards revenue management in hospitality industry have changed towards more permissive in the 2000's (Kimes *et al.* 2003), hospitality businesses still need to carefully consider customers' reaction to overbooking.

Application of the equity theory to negative capacity management failures. The equity theory (also known as justice theory) is the most applied framework in service recovery strategies (Tax and Brown 2000). The equity theory suggest that customers base their perception of fairness into the balance of inputs and outputs in the relationship with the service provider (Garrett 1999). If service failure occurs, the service provider needs to balance the situation with the customer by providing something that affects perceived outcome (Smith *et al.* 1999).

Perceived fairness is divided into distributional fairness, procedural fairness and interactional fairness. Distributional fairness refers to the balance on how much input and output parties put into and get from the relationship (Ruyter and Wetzels 2000). If customers have to move to another hotel regardless of their reservation, they can feel they have been lied to. (Ivanov and Zhechev 2012). Customer can perceive downgrading and denied access as shift in balance as they are not getting the room they were supposed to. Discounts are an example of an action that can increase the perceived distributional fairness in an unbalanced situation (Smith *et al.* 1999). As Noone (2011) suggests, cash-based compensation is a best way to compensate in order to enhance customers' perception of distributional fairness.

Procedural fairness means that the fairness of the process, that leads to certain outcome, is evaluated (Thibaut and Walker 1975). Blodgett *et al.* (1997) claim that the speed of resolving service failures or handling complaints has impact on the perceived fairness of procedural fairness. These actions represent the fairness of the process. Perceived fairness can turn out to be negative when customer feels that the process of denied access or downgrading is not done efficiently or that the process is unequal. Example of process affecting perceived procedural fairness is how is decided whose access is denied or room is downgraded. Procedural fairness is assumed to effect customers' reactions when outcomes are unfavorable (Wirtz and Mattila 2004).

Interactional fairness refers to how respect, politeness and dignity are shown in the interaction (Bies and Moag 1986). Interaction can happen face to face, over the phone, on internet, by mail, e-mail or texting. (Ford *et al.* 2012, p.16). The presence or absence of apology links strongly to customers' perception of interactional justice (Smith *et al.* 1999). Even if the process is fair and customer is remedied sufficiently, perceived fairness can be negative if customer perceives that the interaction was not fair. Interactional justice had substantial impact on whether customer spreads positive or negative word-of-mouth, customer has repurchasing intentions or leaves the hospitality business without complaining (Blodgett *et al.* 1995).

Wirtz and Mattila (2004) argue that distributional fairness, procedural fairness and interactional fairness are interrelated. For example, a high compensation can be considered also as courtesy whereas the lack of compensation as disrespect. Compensation is not only affecting distributional fairness but also interactional fairness., Suggested actions based on reviewed literature of perceived fairness are presented in figure 2.

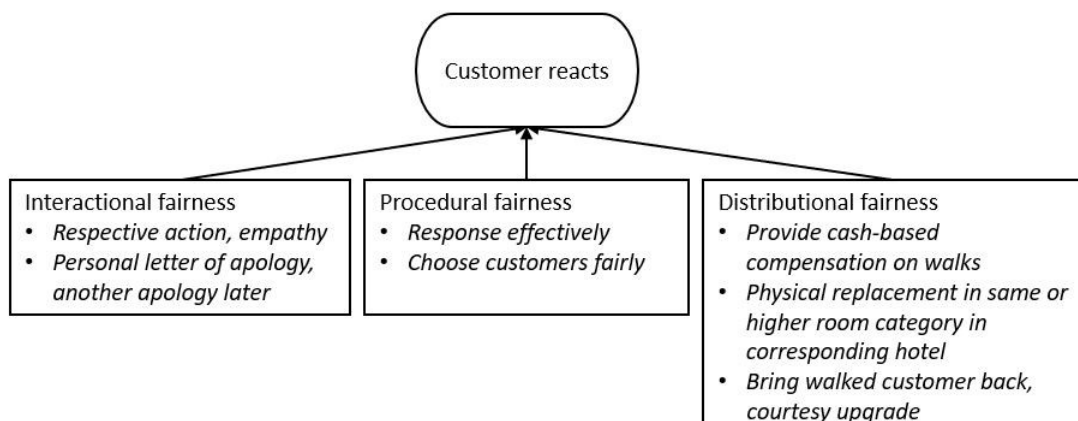


Figure 2. Effect of interactional fairness, procedural fairness and distributional fairness on customer reaction

Perceived fairness is one of the main factors affecting negative word-of-mouth that customers spread about the hospitality business (Blodgett 1994). However, when customers' perception of fairness increases word of mouth becomes more positive and customers become more satisfied with the exchange with the service provider (Swan and Oliver 1989). Garrett (1999) claims that satisfied customers have repurchasing intentions and spread positive word of mouth. Through satisfaction perceived fairness affects the tone of word-of-mouth and repurchasing intentions and therefore customer satisfaction should be ensured.

The customer service gap in negative capacity management failures. Customers' reaction is affected by the gap between what the customer was expecting to get before the failure and what the customer actually gets (Parasuraman *et al.* 1985). This study suggest that negative customer service gaps are most common in capacity management failure situations. A customer's service gap can also be positive, for example if customer is moved to a hotel the customer prefers and the recovery process is otherwise successful. However, the perceived customer service gap can be affected by successful actions in service recovery process.

Framing capacity management failures to be unintended. Customers' perception of the cause of failure has a strong relation to customer satisfaction (Mohr and Bitner 1995). Causes for the failure can be firm-related, consumer related or caused by other factors (Folkes 1984). Service provider should frame the cause of the failure to be dependent on other customers rather than from the hotel's practices to maximize revenue. The denied access situation can managed by explaining that other customers are staying longer than expected (DeKay *et al.* 2004) or that unexpected maintenance problem has made a room unavailable. These explanations can be provided even if the room is not necessary the one with the maintenance problem or overstaying customers, but one of the overbooked rooms. Overbooking has not been openly discussed with customers (Morris, 2018).

Customers who think that the service provider was able to control the failure are more likely to spread negative word-of-mouth and have less repurchasing intentions than customers that thought service provider could not have prevented the failure (Blodgett *et al.* 1995). Customers who expect similar failures to occur in the future are more likely to spread negative word of mouth and have less repurchasing intentions than customers who believe that similar failures are less likely to happen in the again (Blodgett *et al.* 1995). When the level in which service provider is able to control the cause of the problem is perceived high, the customer is more likely to show anger, lower repurchasing intentions and higher likelihood of complaining (Folkes *et al.* 1987). To have less negative reaction, customers should perceive that the cause was not dependent on service providers actions and that the service provider will do what can be done to make sure the problem does not reoccur.

Framing the cause of the failure as unintentional may have less negative effect than other explanations but it can also be considered as modifying the truth. Therefore, hospitality businesses need to decide whether they want to reveal that overbooking was the actual cause for the failure. Writz and Mattila (2004) claim that in the restaurant industry customers were not interested of hearing what caused the failure. Tax *et al.* (1998) found

that offering explanation can have negative effects if customers can for example perceive it as avoiding responsibility. Also, compensation can be thought of as a confession from the service provider (Weiner 2000). Confessions can resolve conflicts, but they send a message that the service provider did wrong and the problem was caused by factors that the service provider could have affected (Bitner 1990). Based on this research in the hospitality business, it seems to be more beneficial from the customer experience point of view that the failure is acknowledged and solved by the service provider but there is no need to emphasize that the failure was caused by overbooking practices.

3.2 Customer reaction to upgrading

The first section of chapter 3.2 considers how upgrading affects customers' future spending. The second section considers how reaction to positive service failures can be affected by specific customer related reasons such as customer relationship. The third section considers the customer service gap in upgrading situations. It is good to bear in mind that most customers do not realize that upgrading is done to allocate more capacity to lower room categories.

3.2.1 Upgrading's effect on future spending

This section explains why this study suggests that upgrading has no significant effect on customers' repurchasing intentions. Customers perceive losses 2-2,5 times worse than the same amount of gains (Kahneman 2003). This might explain why upgrading has no significant effect on future purchasing behaviour. Also, Adams (1963) claims that people adjust their perception of positive inequity as justified outcome and as a result do not change their behaviour. In addition, no significant positive correlation of upgrading and repurchasing intentions was found in airline industry (Wangheim and Bayón 2007).

3.2.2 Reaction to upgrading effected by customer specific reasons

This section explains how customers' relationship with the hospitality business affects their reactions to upgrades. Status customers expect the service provider to overdeliver service every now and then because they have invested more in the relationship than regular customers (Wangheim and Bayón 2007). Expecting upgrades can result from identifying as status customer or previous upgrade experiences. Wangheim and Bayón (2007) claim that expecting upgrades in the future might have positive effects to loyalty and repurchasing intentions.

Wangheim and Bayón (2007) claim that regular customers would react more strongly to an upgrade than status customers since regular customers have not invested to the relationship corresponding amount as they get in the upgrade. This can be the case for example if previous customer relationship does not exist and the distributional balance is not compensated by the customer with other investments in the relationship.

3.2.3 Perceived fairness and customer service gap in upgrading

This section discusses customer service gap in upgrading. It is suggested that the customer service gap is positive when customer is upgraded. However, overdelivering may cause customers to feel distress or guilt of receiving more than they think they deserve (Garrett 1999). However, some amount of overdelivering can lead to increased satisfaction (Garrett 1999). Customers whose service was overdelivered were more satisfied than customers who received service responding to input into relationship (Brockner and Adsit 1986). Although clear revenue increases from upgrades have not yet been found, upgrading is suggested to have positive effect on customer satisfaction.

4 How to act on capacity management failures

The first part of this chapter considers suggested actions before and after capacity management failures. Actions before service capacity failures include managing overbooking with expertise and choosing and informing customers for the failure. The second part of this chapter considers actions after capacity management failures. These actions include compensation and its type, timing and amount as well as emotional remedies. The third part of this chapter introduces a framework of suggested actions in capacity management situations.

4.1 Actions before capacity management failures

The first section of chapter 4.1 considers the role of expertise in capacity management failures. With the help of expertise some failures can be avoided and customers reactions to those failures that occur can be better managed. The second section of chapter 4.1 considers choosing and informing customers for failure. Planning guidelines for choosing and informing customers about the failure are done before the failure and therefore are presented in this section although the implementation of these would be more suitable in section 4.2, action after capacity management failure.

4.1.1 Minimizing capacity management failures and their effects with expertise

This section discusses the role of expertise in overbooking practices. Role of expertise crucial in choosing the customers towards whom actions are taken and handling these customers' reactions. Lefever (1988) claims that the lack of training in overbooking practices can make employees' life difficult and mistakes that follow from problems affect hotel profitability directly. Managers should know problems that employees might face in the booking system interference and offer proactive training (Lefever 1998). When the employees are trained to deal with capacity management failures, it is suggested to the give them clear guidance on the importance of apologies and the speed of process and who, when and how to compensate for the failure (Sorensen, 2014). Suggested ways of training employees are role-playing and simulations of real life situations (Hart *et al.* 1990).

Outsourcing and centralizing revenue management requires identifying decisions that require knowledge of the local market and those who do not. Decisions that do not require specific knowledge can be centralized or outsourced (Kimes 2011). The organization of the revenue management is going to be more centralized (Kimes 2011, Kimes 2017), which may cause challenges to revenue management implementation. On-site revenue manager could educate and explain revenue management practices to other employees but due to centralization, this benefit is lost (Kimes 2011). Communications between outsourced or centralized revenue management and the hospitality unit is important in planning the actions that result from overbooking, for example choosing and informing customers for the failure.

Findings about the need for human interpretation in revenue management practices are controversial. Revenue management has been described to be balancing between art and science (Josephi *et al.* 2016). Lefever (1998) claims that forecasting is educated guessing and the information requires human interpretation when entered and released from the data. DeKay *et al.* (2004) claim that although forecasts are formed with revenue management systems, guiding and intervening to revenue management practices requires expert judgement and experience. People who are working with revenue management claim that decisions on overbooking and execution of non-performance penalties are too complex to be forecasted by revenue management systems (*ibid.*). Experience increases reliability in decision-making that is based on intuition and following intuition successfully requires both knowledge and experience (Dijkstra *et al.* 2013). However, the definition of revenue management expertise is changing. Revenue managements orientation will become more strategic and technological and therefore revenue managers should have better analytical and communication skills (Kimes 2011, Kimes 2017). Skills described suitable for revenue managers correspond to those in the root of data science, for example operational research, databases, machine learning and data visualization (Kimes 2017). Traditional role of expertise in decision making is defended by revenue management professionals. Data science is a relatively recent field and applications to revenue management can encounter change resistance. The role of human interpretation in revenue management is necessary in new fields such as in drawing conclusions from analyses and this study suggests that traditional managing of overbooking forecasts by hand will have less significant role in the future.

4.1.2 Choosing and informing customers for capacity management failures

This section introduces planning of choosing and informing customers for failure. Service recovery in capacity management failures includes choosing and informing customers that are to face the failure, managing perceived fairness and remedies as well as considering customer complaints. Suggestions for choosing and informing customers for the failure are summarised in figure 3.

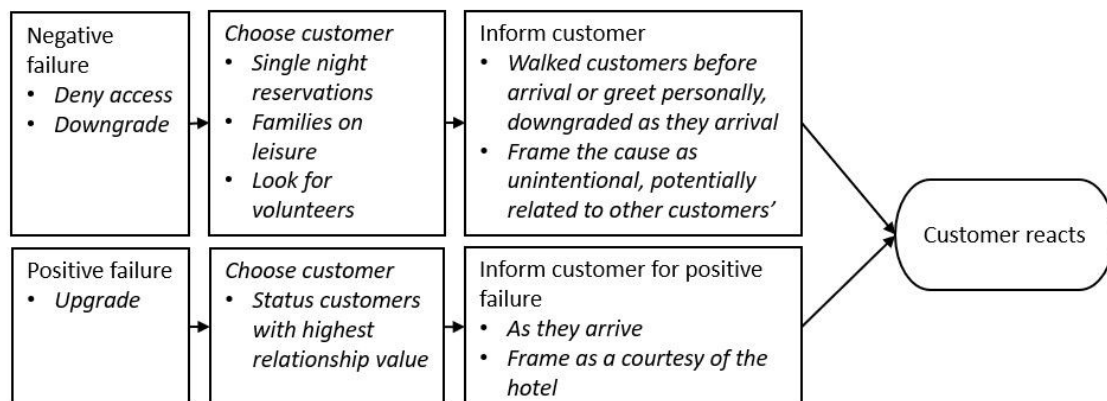


Figure 3. Effect of choosing and informing customer on customer reaction

Recovery strategy is a guide for the company which states the actions that are taken in service failure situations (Gröönroos 2000) and it has significant role in achieving customer loyalty (Tax and Brown, 2000.) Service recovery program should focus on the outcome the process (Writz and Mattila 2004). Outcome represents distributional fairness and can for example be compensation (Writz and Mattila 2004). The process should also include interactional and procedural fairness, these can be for example apology and the speed of the process respectively (Writz and Mattila 2004). The first steps of service recovery process in capacity management failures are choosing the customers for the failure and informing them.

Choosing customers for failures. Planning of walks should be started right after check-out, when the number of early departures and customer who are staying longer than they were supposed to is known (DeKay *et al.* 2004). DeKay *et al.* (2004) suggested not to walk regular airline groups, frequent flyer-program people, families who are staying more than one night, loyal “known” customers, unaccompanied minors or single women. Single night reservations, families on leisure travels and found volunteers are targeted for walks (DeKay *et al.* 2004). DeKay *et al.* (2004) state that leisure guest might appreciate free nights more than companies. Downgraded customers can be chosen on the same basis as walked customers. Mattila (2004) suggest that emotionally committed

customers might feel “betrayed” by the service providers failure whereas customers with low emotional bond react less negatively after successful service recovery. This can be considered when customers for denied access or downgrading are chosen. It might also be so that walked customers are not chosen and the ones arriving after the capacity is filled are walked. Customers for upgrades can be chosen based on their input in the relationship with the hotel (Wangheim and Bayón 2007). This leads to upgrades of status customers.

Informing customers about the failure. Informing walked customers is suggested to be done prior to their arrival at the hotel (Sorensen 2014). This way customers can go straight to new hotel. If sending customers directly to the new hotel is not possible, it is recommended that customers are personally greeted (Sorensen 2014). This will leave less negative impression. Informing customers should be done quickly so that unnecessary uncertainty and anxiety could be avoided. According to Choi and Mattila (2005), customers’ perception of revenue management practices’ fairness increases when more information about for example pricing policy is introduced to the customer. It is assumed that customers perceive service failure situation less unfair when knowledge about reasons and future actions is increased. Informing customers about downgrades and upgrades can be done as the customer arrives to the hotel.

4.2 Actions after capacity management failures

Actions after denied access and downgrading should include tangible and intangible remedies. Section 4.2.1 considers suggested physical replacements and compensations, and section 4.2.2 considers customers’ emotional needs.

4.2.1 Providing physical replacements and compensation

This section considers physical replacements and amount, type and timing of suggested compensation. Service providers should bear in mind that if revenue management practices are considered unfair, created revenue might be short-term (Kimes 1994). Regardless of customers getting used to overbooking practices, risking profits and customer loyalty by overbooking without compensating can be costly. Hart *et al.* (1990) claim that the cost of acquiring new customers is five times the cost of keeping the current customers satisfied.

Tversky and Kahneman (1981) claim that people react differently when the same outcome is framed as gains or when it is framed as losses. In a situation where customer

is downgraded or walked, the service provider should try to get the customer to believe that after remedies they have gained more than lost. Upgrading is positive capacity management failure and therefore does not require similar service recovery process as negative capacity management failures. Upgrading is a possibility to make customer feel special with “no extra cost” in case where capacity is not a constraint in higher room categories. Making customers feel special can be done by emphasizing how the hotel wanted to provide better room.

Physical replacement. Overbooking policy needs to consider physical replacements after denied access. Gilly and Hansen (1985) claim that customers, who in a walking situation were offered arrangements for comparable facilities in another location were in addition offered complimentary dinner and a free weekend at the hotel chain were significantly more likely repurchase and spread positive word-of-mouth. Some hotels however do not have nearby accommodation that would correspond the level of the original hotel and this needs to be considered in their overbooking strategy.

Type of compensation. Noone (2011) suggests that compensation should be cash-based. Cash-based compensation is preferred to coupon or other compensations (Noone 2011). Cash-based compensation is supported with the theory of mental accounting (Kahneman and Tversky 1984, Thaler 1985). Cash-based compensation can compensate on mental account for rooms cost, whereas other types of compensations would go into a different account, such as food cost or costs of future stays in the same hotel chain.

Vouchers include uncertainty (Noone 2011). Compensation’s utility can be calculated as the amount of compensation is multiplied by the probability of using compensation. Kahneman and Tversky (1979) suggest that people overweight probabilities that are considered certain and underweight low probabilities. Keren and Roelofsma (1995) claim that individuals value immediate outcomes in comparison to delayed ones. The uncertainty of the event may reduce compensation’s value (Keh and Lee 2006). The utility decreases as the probability of using coupon or vouchers decreases. Cash-based compensation is flexible, and the customer can choose how to use it. Customers’ repurchasing intentions, word-of-mouth communication of satisfaction do not significantly increase with the amount of compensation, when compensation is provided as coupons (Garrett 1999). In addition, Noone (2011) found that overcompensating with cash is more likely to have more positive effect on customer than overcompensating with vouchers. However, giving non-cash-based compensation is typically in the interests of hospitality businesses as the cost of providing the service is significantly lower than the value of compensation on paper.

Amount of compensation. In addition to physical replacement, other tangible compensations are suggested. Standard hospitality industry's best practice is compensating for a night and a way to get to the new place, formerly also a long-distance call was provided (DeKay *et al.* 2004). When capacity becomes available, guests should be brought back to original hotel where they should receive a courtesy upgrade (DeKay *et al.* 2004). DeKay *et al.* (2004) suggest that other ways to try to make up for potential loss of goodwill can be a free night or free stay in the future, frequent flyer-stayer award points or flowers to room. Hwang and Wen (2009) in their study found that 30% of participants expected a free night or discounted stay at the original hotel in a later occasion to continue business with hotel as if incident would not have occurred. A complimentary meal as well as the level of the hotel customers were walked to were important to some customers (Hwang and Wen 2009). Wangheim and Bayón (2007) claim that the difference in treatment with high-status and low-status customers becomes more important when failures occur. They argue that a higher compensation based on fairness theory and empirical results should be provided for high-status customers.

Overcompensation. Overcompensation refers to a remedy where the customer gets compensated with more than what would have been the value of the original reservation. Noone (2012) suggest that in overcompensation the service provider needs to decide the form (cash/cash-equivalent) and monetary value. Literature proposes mixed results about overcompensation (Noone 2012). Different customer segments may react differently to overcompensations (Noone 2012). Garrett (1999) claims that higher compensation does not significantly increase customer repurchase intentions, word of mouth actions or satisfaction with consumer products product. Noone and Lee (in press) found that overcompensation in comparison with full compensation does not have significant difference on repurchasing intentions. Form of overcompensation affects customer satisfaction and cash-based overcompensation increases satisfaction (Noone and Lee in press). Davidow (2003) criticizes the assumption that with overcompensation it is possible to "buy" more positive customer responses.

Noone (2011) claims that service providers should go beyond normal compensation to maximize customer satisfaction with the service failure recovery experience. Noone (2011) claims that highest satisfaction level with denied customers is reached when they are offered 100% compensation of reserved room rate in addition to covering the room rate at alternative hotel. Exceeding this level of compensation is unlikely to increase satisfaction. Theory of marginal utility suggests that the benefit of raising amount of

compensation decreases (Noone 2011). Partial compensation is better than no compensation (Noone 2012) and hotels should therefore offer partial compensation if they do not want to offer overcompensation or full compensation. People consider gains from original reference point, what they should have gained (Kahneman 2003, Thaler 1985). Therefore, according to prospect theory (Kahneman 2003, Thaler 1985) even small compensation should increase customers' utility.

Timing of compensation. Speed of recovery is important to the success of recovery process (Wirtz and Mattila 2004). Dissatisfaction should be handled straight away or offered compensation if there will be delay (Wirtz and Mattila 2004). Noone (2011) states receiving compensation immediately is preferred and therefore the compensation should be given in the occasion of the failure. Delays in compensation and in apology reduce the customers satisfaction level (Wirtz and Mattila 2004). Keh and Lee (2006) agree that immediate compensation can be more effective than delayed. Immediate compensation can buffer the negative feelings felt when service is denied (Keh and Lee 2006). Fast recovery results in higher repurchasing intentions and lower negative word-of-mouth than delayed recovery (Keh and Lee 2006). Fast response indicates effective processes and high service quality (Wirtz and Mattila 2004). Customer reflects high and effective service to future actions (Wirtz and Mattila 2004) and think that the service failure is less likely to happen again in the future.

Wirtz and Mattila (2004) argue that compensation might not increase customer satisfaction when recovery process is not successful in procedural and interactive justice. They also argue that when recovery process is successful, compensation might not increase satisfaction. Covering customers' potential financial lost with cash-based compensation will provide utility up to a certain point, after which customer seeks to satisfy other needs (Noone 2011). Koc (2017) claims that thinking that monetary remedies make customers satisfied is a naïve and narrow-minded approach in service recovery situations. Therefore, customers' emotional needs are discussed in the following section.

4.2.2 Considering customers' emotional needs and encouraging complaining

This section considers customers' emotional needs and complaining behavior. Actions to encourage complaining are summarized in figure 4.

Customers' emotional needs. Customer wants to be genuinely heard. Blodgett *et al.* (2005) suggest that customer should be told that their business with the service provider is important. When customers face negative capacity management failure it is recommended to give personal letter of apology, and after some time, another apology and thank for patience (Sorensen, 2014). Apology has smaller effect when recovery is delayed (Wirtz *et al.* 2004) and therefore service recovery process should be efficient. Kotler *et al.* (2017 p.43) found that 82% of customers returned when major complaint was solved efficiently. Service provider needs to show empathy towards customer and give possibility to explain the problem (Blodgett *et al.* 1995). Once emotional needs have been met, customer start satisfying other needs (Noone 2011).

Considering complaints. Blodgett *et al.* (2005) state that customers have options to engage in negative word-of-mouth or exit without having repurchasing intention and without seeking for remedy (Blodgett *et al.* 2005). Asking direct feedback and encouraging customers to seek remedy is recommended because complaints gives service provider possibility to identify problem areas (Garrett 1999), remedy problems and keep business that would have occurred without service failure (Blodgett *et al.* 2005). Customers should be contacted after purchase (Blodgett *et al.* 2005) because corrective movements can be done also the customer has left the hotel.

Customers base their choices of complaining also on the service level they expect to receive if something goes wrong (Blodgett *et al.* 2005). Customers' choice is affected by service providers reputation of responding to complaints. If reputation is negative, less customers will try to get remedy, which can lead to customers having no repurchasing intentions and spreading negative word-of-mouth (Blodgett *et al.* 2005). The high probability of success increases the probability of customer seeking a remedy (Blodgett *et al.* 2005). The possibility to succeed in complaining can be affected by the brand image, level of customer service or guarantees of satisfaction (Blodgett *et al.* 2005). Brand can increase remedy seeking by being reliable, having customer service that has responded well to similar situations in the past and by other ways giving an image of service quality (Blodgett *et al.* 2005). Answering to complaints should include elements from distributional justice such as monetary compensation and from interactional justice such as respective action towards the customer. (Bies and Moag 1986, Blodgett *et al.* 2005). Another affecting factor to remedy seeking is customers positive attitude towards complaining in general (Blodgett *et al.* 2005). Below in the figure 4 you can find a summary of the best practices to encourage complaining.

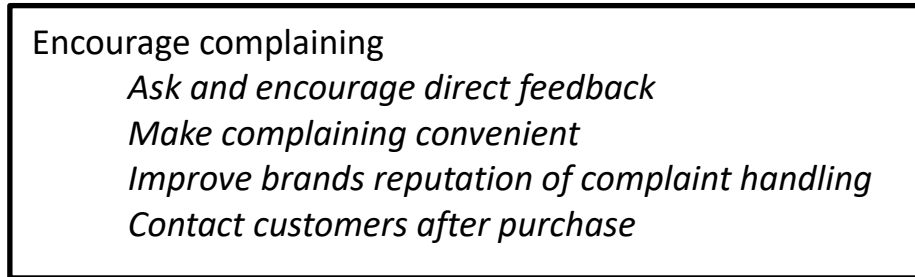


Figure 4. Ways to improve possibilities for complaining behavior

4.3 Framework of actions in capacity management failures

This chapter introduces a framework of service actions for capacity management failure situations (figure 5.) and explains the framework. The framework summarises the main findings of this study. The framework has been influenced by the conceptual framework *the role of the dimensions of perceived fairness and causal attributions on satisfaction and post-encounter responses* by Wirtz and Mattila (2004). The framework's purpose is to visualise possible paths and responses in failure situations. By knowing what affects customers' reactions, people working in hospitality businesses will have better understanding of how to take necessary actions towards more successful customer service.

Overbooking failures can be minimized with revenue managers' expertise. This can be seen from the first part of the framework on the left. Overbooking practices sometimes lead to failures. These failures are denied access, downgrading and upgrading.

Service recovery process starts with choosing customers who are to face the failure and informing them. As posed in the framework, choosing customers in negative and positive failure situations should differ. For negative capacity management failures, choosing customers with single-night reservations, families on leisure or found volunteers are suggested to be targeted. For upgrades, status customers with highest relationship value should be targeted.

In the middle of the framework it is explained how the informing of the customers should be done. Informing walked customers should be done before their arrival at the hotel. If informing beforehand is not possible, customers should be greeted personally. Informing customers about downgrades and upgrades can be done as customers arrive. Customers' perceived fairness is affected by what is presented as the cause for the failure. Denied

access and downgrading should be presented as unintentional and potentially related to other customers. Upgrades should be presented as courtesy from the hospitality business.

In the upper part of the framework customer specific reasons are presented. These reasons have an effect on customers' reaction, but hospitality business cannot affect them in the failure situation. These specific reasons are customer relationship, customer's culture and travelling occasion.

In addition, customers' reaction is affected by how the capacity management failure is remedied. Successful remedy consists of succeeding in interactional, procedural and distributive fairness. Suggested actions related to these remedies are presented in the bottom part of the framework. To improve customers' perception of interactional fairness customers should be shown empathy and respect. The importance of apology during the stay and after the stay should be remembered in negative capacity management situations. Interactional fairness in upgrading situations means communicating customers their high value. To improve the perception of procedural fairness, the process of responding to failures should be effective and the process of choosing customers should be fair in both negative and positive capacity management failure situations.

To improve the perception of distributive fairness it is suggested providing cash-based overcompensation in negative capacity management failure situations. Physical replacement of walked customers should be in same or higher room category as in the original hotel. It is suggested to bring walked customers back to original hotel and give them courtesy update as they arrive. Upgrading is increasing hotel's input in the customer relationship and therefore needs no further actions. Based on the findings of this study, in negative capacity management failures presented actions result in highest satisfaction levels and customer satisfaction affects repurchasing intentions.

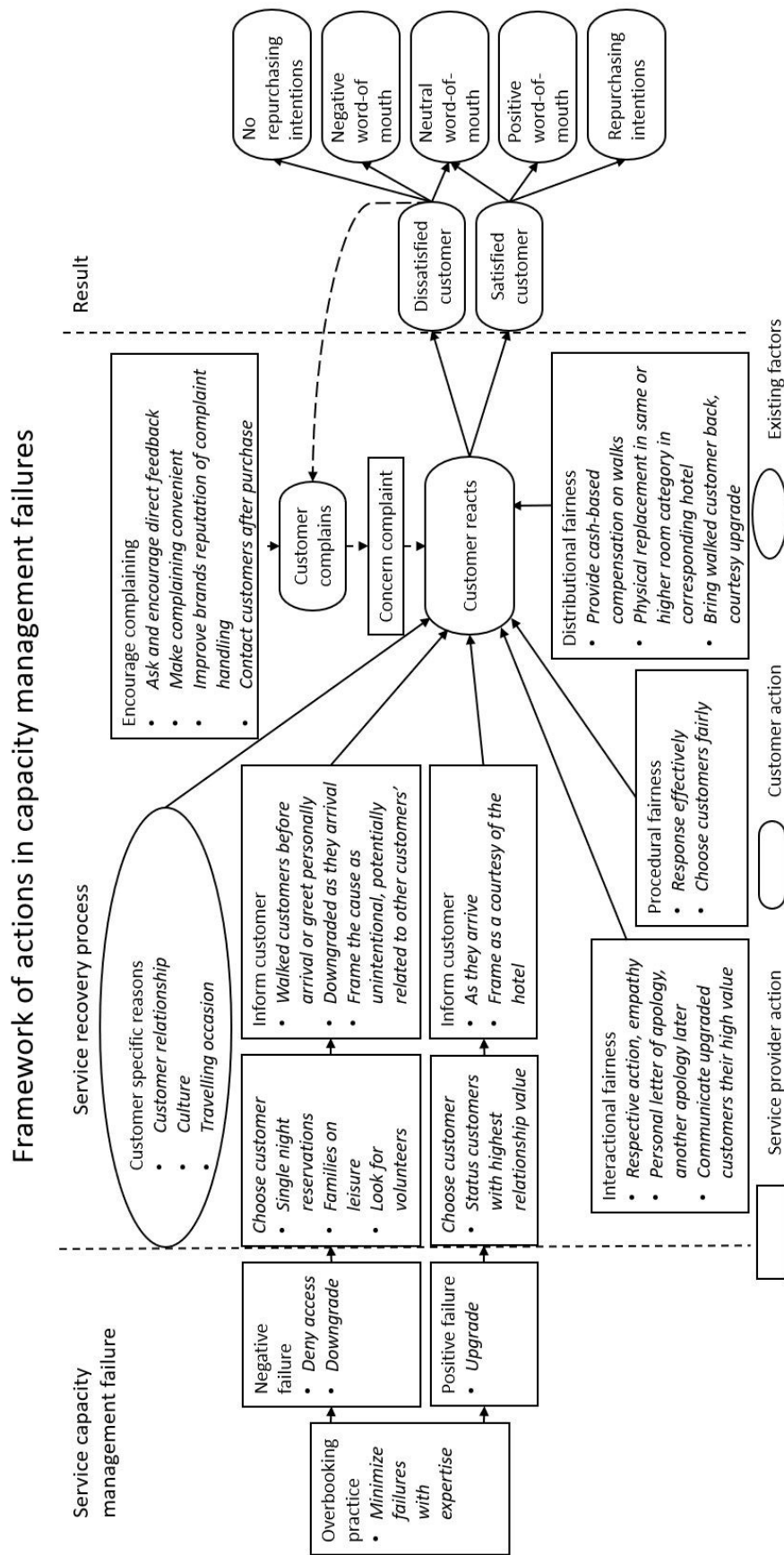


Figure 5. Framework of actions in capacity management failures

After being remedied, customer react and becomes either satisfied or unsatisfied. As seen on the right side of the framework, satisfied customers spread neutral or positive word-of-mouth and have positive repurchasing intentions and unsatisfied customers spread neutral or negative word-of-mouth and have no repurchasing intentions. Repurchasing intentions do not mean that the customer would in fact make purchases in the future.

However, if a customer submits a complaint, the service provider has a second chance to remedy the failure and see if service recovery process has failed at some point. How service provider considers complaints affects customers' reaction. As can be read from the framework, when the treatment of the complaint is successful, and service recovery process has otherwise been successful, unsatisfied customers can be turned into satisfied customers.

In the upper section of the framework it is listed what actions to take to encourage complaining behaviour. Complaining behaviour is affected by previous experiences in complaining, likelihood of remedy and customers' attitude towards complaining in general. It is suggested to improve brands reputation of complaint handling and make complaining easy. Customers should be contacted after the purchase. It is suggested to encourage customers to give feedback or negative response straight to the hotel, trying to avoid negative information to spread through social media and reviews displayed in distribution channels.

5 Conclusions

This literature review aimed to find how customers react to capacity management failures and what can be done to remedy these failures. First part of this chapter discusses implications to research by explaining how this study fills a gap in the literature of managing customers' reactions in capacity management failures. Second part of this chapter discusses implications to practice. These implications consist of several suggestions for actions to enhance customers reaction. Managing customers' reaction in capacity management failures can influence customers' word-or-mouth behaviour and repurchasing intentions. Third part of this chapter discusses limitations of this study and gives suggestions for future research. Limitations include the applicability of reviewed studies. Future research suggests studying customers' reactions and behaviour with real data that should be collected from customers who have faced capacity management failure situation.

5.1 Implications to research

In the hospitality industry, managing customers' reactions in capacity management failures has an impact on future revenues. This study provides a literature review that fills a gap in the research in customers' reaction to capacity management failures in the hospitality industry. It combines knowledge from business, hospitality and marketing fields. Previous research has not provided a complete framework of suggestions for actions in managing customers' reactions in capacity management failures. This review brings together multiple conclusions of research on how to manage customers' reactions in capacity management failures with the vision of efficiency, customer satisfaction and future revenue. The proposed framework (Figure 5) takes a managerial perspective and provides a visualization of the factors that are essential for a hospitality business to act on capacity management failures in a way that improves customer satisfaction.

5.2 Implications to practice

This study highlights the need for understanding of customers' reaction and following suggested actions. With presented actions hospitality business can affect customers' satisfaction through perceived fairness. This study suggests that purchasing behavior is affected negatively by denied access and downgrading, whereas upgrading does not lead

to significantly positive changes in purchasing. This study found that customers' reactions are affected by customer specific reasons, which are customer relationship, culture and travelling occasion, among others. Customers' reactions can be affected by when and how informing about the failure is done and what is represented as the reason for the failure.

This study found that satisfied customers spread positive or neutral word-of-mouth and have repurchasing intentions, whereas dissatisfied customers spread negative or neutral word-of-mouth and have no repurchasing intentions. This study also found cash-based overcompensation has most beneficial impact on customers satisfaction. Speed of recovery affects the level of customers' satisfaction. It was also found that successful recovery process needs succeeding in all three areas of perceived fairness; distributional fairness, procedural fairness and interactional fairness. This study found that complaining behavior should be encouraged because concerning a complaint gives hospitality business a chance to complete customers' remedy.

5.3 Limitations and future research

Limitations. Literature reviewed in this study includes several studies that are based on limited data, such as survey or a case study of few hospitality businesses. Few studies were applied from other customer service industries, such as airline and restaurant industries. Some studies are not recent and for example applications of revenue management practices might have advanced. In reality, revenue management practices in the hotel industry are far more developed than the hotel revenue management research literature (Ivanov and Zhechev 2012). Information about how issues in revenue management practice (such as forecasting models) are resolved remains with the hotel chains, which prevents the theoretical advancement in the hospitality industry (ibid.). Therefore, less relevant information about handling customers' emotions in denied access, downgrading and upgrading situations was available for the review. This study represents a framework of actions in capacity management failures. Framework is a simplification and therefore not applicable in all situations. Also, the framework represents logical connections, but not all customers follow them accordingly.

Future research. Research on customers' reaction to capacity management failures is not thorough. Garrett (1999) claims that there are few theoretical or empirical studies of service failure and recovery issues. In managerial context it would be useful to research perceived fairness of compensations with more specific options in the overcompensating.

Hwang and Wen (2009) argue that a study collecting responses from customers who have encountered denied access should be conducted. Their argument is supported by this literature review. A study of customers' reaction to capacity management failures should be conducted with actual customers who have faced these failures.

Customer-centric view has not been common in revenue management literature or management practice (Wangheim and Bayón 2007). Managers in hospitality industry have access to continuously growing amount of data about customers' and competitor's actions. (Noone *et al.* 2011). Customer data about customers' perceptions and purchasing behavior after capacity management failure should be gathered and analyzed more. These quantitative results could further develop the framework suggested in this study.

References

AHLA (2006), Revenue management, *American Hotel & Lodging Association*, 46p.

António, N., de Almeida, A., & Nunes, L. M. (2017). Using Data Science to Predict Hotel Booking Cancellations. In *Handbook of Research on Holistic Optimization Techniques in the Hospitality, Tourism, and Travel Industry* (pp. 141-167). IGI Global.

Bernardo, M., Llach, J., Marimon, F., & Alonso-Almeida, M. M. (2013). The balance of the impact of quality and recovery on satisfaction: the case of e-travel. *Total Quality Management & Business Excellence*, 24(11–12), 1390–1404.

Bies, R.J. and Moag, J.S. (1986), “*Interactional justice: communication criteria of fairness*”, in Lewicki, R., Bazerman, M. and Sheppard, B.(Eds), *Research on Negotiation in Organizations*, Vol. I, JAI Press, Greenwich, CT.

Bitner, M.J. (1990), “*Evaluating service encounters: the effects of physical surroundings and employee responses*”, *Journal of Marketing*, Vol. 54 No. 2, pp. 69-82.

Blodgett, J.G. (1994), “The effects of perceived justice on complainants’ repatronage intentions and negative word-of-mouth behavior”, *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, Vol. 7, pp. 1-14.

Blodgett, J.G., Hill, D.J. and Tax, S.S. (1997), “*The effects of distributive, procedural and interactional justice on post-complaint behavior*”, *Journal of Retailing*, Vol. 73 No. 2, pp. 185-210.

Blodgett, J. G., Wakefield, K. L., & Barnes, J. H. (1995). The effects of customer service on consumer complaining behavior. *Journal of services Marketing*, 9(4), 31-42.

Brockner, J., & Adsit, L. (1986). The moderating impact of sex on the equity–satisfaction relationship: A field study. *Journal of Applied Psychology*, 71(4), 585.

Choi, S., Mattila, A. S. (2005). Impact of Information on Customer Fairness Perceptions of Hotel Revenue Management. *Cornell Hotel and Restaurant Administration Quarterly*, 46(4), pp. 444-451.

Colgate, K. and Norris, M. (2001), "Developing a comprehensive picture of service failure", *International Journal of Service Industry Management*, Vol. 12 No. 3, pp. 215-33

Davidow, M. (2003), "Organizational responses to customer complaints: what works and what doesn't", *Journal of Service Research*, Vol. 5 No. 3, pp. 225-50.

DeKay, F., Yates, B., Toh, R. S. (2004). Non-performance penalties in the hotel industry. *International Journal of Hospitality Management*, 23, 273-286.

Dijkstra, K. A., Pligt, J., & Kleef, G. A. (2013). Deliberation versus intuition: Decomposing the role of expertise in judgment and decision making. *Journal of Behavioral Decision Making*, 26(3), 285-294.

Emmer, R.M., Tauck, C., Wilkinson, S. and Moore, R.G. (1993) Marketing hotels: Using global distribution system. *Cornell Hotel and Restaurant Administration Quarterly* **34** (6): 80-89.

Folkes, V.S. (1984), "Consumer reactions to product failure: an attributional approach", *Journal of Consumer Research*, Vol. 11 March, pp. 398-409.

Folkes, V.S., Koletsky, S. and Graham, J. (1987), "A field study of causal inferences and consumer reaction: the view from the airport", *Journal of Consumer Research*, Vol. 13, March, pp. 534-9.

Ford, R. C., Sturman, M. C., & Heaton, C. P. (2012). Managing quality service in hospitality. *Demar cengage learning*.

Garrett, D. E. (1999). The effectiveness of compensation given to complaining consumers: is more better? *JOURNAL OF CONSUMER SATISFACTION DISSATISFACTION AND COMPLAINING BEHAVIOR*, 12, 26-34.

Gilbert, D.C., Beveridge, D.W. and Lee-Kelley, L. (2005) Electronic distribution of hotel rooms - An exploratory study of the European hotel industry. *Journal of Hospitality Marketing & Management* **12** (3): 45-61.

Gould, R. E., Ramsey, T. J., & Sherry, J. E. (1980). The hotelkeeper's contract and the international traveler. *Cornell Hotel and Restaurant Administration Quarterly*, 20(4), 67-74.

- Grönroos, C. (2000), *Service Management and Strategy: Marketing the Moments of Truth in Service Competition*, 2nd ed., Lexington Books, Lexington, MA
- Hart, C.W.L., Heskett, J.L. and Sasser, W.E. (1990), “*The profitable art of service recovery*”, *Harvard Business Review*, Vol. 68 No. 4, pp. 148-56.
- Hazel, M. R., Shinobu, K. (1991). Culture and the Self: Implications for Cognition, Emotion, and Motivation. *Psychological Review*, 98(2), pp. 224-53.
- Hwang, J., Wen, L., (2009). The effect of perceived fairness toward hotel overbooking and compensation practices on customer loyalty. *International Journal of Contemporary Hospitality Management*, 21(6), pp. 659-675.
- Ivanov, S., & Zhechev, V. (2012). Hotel revenue management—a critical literature review. *Turizam: međunarodni znanstveno-stručni časopis*, 60(2), 175-197.
- Joseph, S. H., Stierand, M. B., & van Mourik, A. (2016). Hotel revenue management: Then, now and tomorrow. *Journal of Revenue and Pricing Management*, 15(3-4), 252-257.
- Kahneman, D. (2003). Maps of Bounded Rationality. *Psychology for Behavioral Economics*, The American Economic Review, Vol. 93, No. 5, pp. 1449-1475
- Kahneman, D., Knetsch, J., & Thaler, R. (1986). Fairness and the Assumptions of Economics. *The Journal of Business*, 59(4),
- Kahneman, D. and Tversky, A. (1979), “Prospect theory: an analysis of decision under risk”, *Econometrica*, Vol. 47, pp. 263-91.
- Keh, H.T. and Lee, Y.H. (2006), “Do reward programs build loyalty for services? The moderating effect of satisfaction on type and timing of rewards”, *Journal of Retailing*, Vol. 83 No. 2, pp. 127-36.
- Keren, G. and Roelofsma, P. (1995), “Immediacy and certainty in intertemporal choice”, *Organizational Behavior and Human Decision Processes*, Vol. 63 No. 3, pp. 287-97.
- Kimes, S. E. (1994). Perceived fairness of yield management. *Cornell Hotel and Administration Quarterly*, 35(1), 22-29.
- Kimes, S. E., & Chase, R. B. (1998). The strategic levers of yield management. *Journal of Service Research*, 1(2), 156-166.

- Kimes, S. E., Wirtz, J. (2003). Has revenue management become acceptable? Findings from an international study on perceived fairness of rate fences. *Journal of Service Research*, 6, 125-135.
- Kimes, S. E. (2011). The future of hotel revenue management. *Journal of Revenue and Pricing Management*, 10(1), 62-72.
- Kimes, S. E. (2017). The future of hotel revenue management. Cornell Hospitality Report, 17(1), 3-10.
- Koc, E. (Ed.). (2017). *Service Failures and Recovery in Tourism and Hospitality: A Practical Manual*. CABI. p9-24 /Christina K. Dimitriou
- Koc, E., Ulukoy, M., Kilic, R., Yumusak, S., & Bahar, R. (2017). The influence of customer participation on service failure perceptions. *Total Quality Management & Business Excellence*, 28(3-4), 390-404.
- Kotler, P., Bowen, J. T., Makens, J. C., & Baloglu, S. (2006). Marketing for hospitality and tourism.
- Ladany, S. (1996). Optimal market segmentation of hotel rooms—the non-linear case. *Omega*, 24(1), pp. 29-36.
- Lefever, M. M. (1988). The gentle art of overbooking. *Cornell Hotel and Restaurant Administration Quarterly*, 29(3), 7.
- Lin, W. B. (2012). The determinants of consumers' switching intentions after service failure. *Total Quality Management & Business Excellence*, 23(7-8), 837-854.
- Liu, P. H. (2004). Hotel demand/cancellation analysis and estimation of unconstrained demand using statistical methods. *Revenue management and pricing: Case studies and applications*, 91-101.
- Mattila, A. S. (2004). The impact of service failures on customer loyalty: The moderating role of affective commitment. *International Journal of Service Industry Management*, 15(2), 134-149.
- Mohr, L. and Bitner, M.J. (1995), "The role of employee effort in satisfaction with service transactions", *Journal of Business Research*., Vol. 32 No. 3, pp. 239-53.

- Morales, D.R., & Wang, J. (2010). Forecasting cancellation rates for services booking revenue management using data mining. *European Journal of Operational Research*, 202 (2), 554-564.
- Morris, H., (2018). Do hotels really overbook their rooms? *The Telegraph*, <https://www.telegraph.co.uk/travel/advice/hotel-overbooking-does-it-happen/>, Accessed 7.5.2018.
- Noone, B. M. (2011). Hotel Overbooking. *Journal of Hospitality & Tourism Research*, 35(3), pp. 334-357
- Noone, B. M. (2012). Overcompensating for severe service failure: perceived fairness and effect on negative word-of-mouth intent. *Journal of Services Marketing*, 26(5), 342-351.
- Noone, B.M., McGuire, K.A. and Rohlf, K.V. (2011) Social media meets hotel revenue management: Opportunities, issues and unanswered questions. *Journal of Revenue and Pricing Management* 10 (4): 293-305.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *the Journal of Marketing*, 41-50.
- Pullman, M., & Rodgers, S. (2010). Capacity management for hospitality and tourism: A review of current approaches. *International Journal of Hospitality Management*, 29(1), 177-187.
- Ruyter, K.D. and Wetzels, M. (2000), "Customer equity considerations in service recovery: a cross-industry perspective", *International Journal of Service Industry Management*, Vol. 11 No. 1, pp. 91-108.
- Smith, A.K., Bolton, R.N. and Wagner, J. (1999), "A model of customer satisfaction with service encounters involving failure and recovery", *Journal of Marketing Research*, Vol. 36 No. 3, pp. 356-72.
- Ryan Sorensen 30 JUNE 2014 6:44 AM How to effectively walk guests. Hotel News now <http://www.hotelnewsnow.com/Articles/23068/How-to-effectively-walk-guests>
- Swan, J. E., & Oliver, R. L. (1989). Postpurchase communications by consumers. *Journal of retailing*, 65(4), 516-534.
- Tax, S.S. and Brown, S.W. (2000), "Service recovery: research insights and practices", in Swartz, T. and Iacobucci, D. (Eds), *Handbook of Services Marketing and Management*, Sage, Thousand Oaks, CA, pp. 271-86.

- Tax, S.S., Brown, S.W. and Chandrashekar, M. (1998), “*Customer evaluations of service complaint experiences: implications for relationship marketing*”, *Journal of Marketing*, Vol. 62 No. 2, pp. 60-76.
- Thaler, R. (1985). Mental Accounting and Consumer Choice, *Marketing Science* 4, pp. 199 – 214
- Thibaut, J. and Walker, L.(1975), *Procedural Justice*, Erlbaum Associates, Hillsdale, NJ.
- Toh, R. S., & Dekay, F. (2002). Hotel room-inventory management: an overbooking model. *Cornell Hotel and Restaurant Administration Quarterly*, 43(4), 79-90.
- Tversky, A. & Kahneman, D. (1981). The Framing of Decisions and the Psychology of Choice, *Science* 211, pp. 453-458
- Wang, X.L., Yoonjoung Heo, C., Schwartz, Z., Legohérel, P. and Specklin, F. (2015) Revenue management: Progress, challenges, and research prospects. *Journal of Travel & Tourism Marketing* **32** (7): 1-15.
- Wangenheim, F. V., Bayón, T. (2007). Behavioral consequences of overbooking service capacity. (Report). *Journal of Marketing*, 71(4), p. 36.
- Wirtz, J., Mattila, A. S. (2004). Consumer responses to compensation, speed of recovery and apology after a service failure. *International Journal of Service Industry Management*, 15, 150-166.